

**CLAIMS**

1. A data processing method for a UDDI registry to enable  
location of details of services which match service  
5 requester requirements, the method of the UDDI registry  
comprising the steps:

receiving a standard UDDI request to locate service  
details, the request comprising details of a tModel which  
10 defines service requirements specified in a particular  
language;

locating details of at least one service, the details  
comprising a tModel which defines service capabilities  
15 specified in the particular language;

selecting from a plurality of external matching  
services an external matching service which is capable of  
comparing the service requirements and service  
20 capabilities, wherein each external matching service is  
accessed through an interface defined in an interface  
tModel; and

using the external matching service to filter the  
25 located details to find those with indicated service  
capabilities which match the service requirements.

2. The method of claim 1 wherein the standard UDDI request further comprises service requirements specified in a standard UDDI category, the method comprising the further step of:

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finding details of at least one service, the details defining service capabilities which match the service requirements specified in a standard UDDI category;

10 wherein the locating step locates details of at least one service from those found by the finding step.

3. The method of claim 1 comprising the further steps of:

15 receiving a request to register an new external matching engine wherein the matching engine implements the interface defined in the interface tModel;

20 wherein the plurality of external matching services includes the new matching engine.

4. The method of claim 1 wherein the standard UDDI request is a find\_tModel request.

25 5. The method of claim 1 wherein the particular language is one of DAML-S, UML, and WSDL.

6. A method for a service provider to provide details of capabilities of a service which it provides to a UDDI registry, the method comprising the steps:

5 making a description of the service capabilities accessible to the UDDI registry, the description comprising details of the service capabilities specified in a particular language, the particular language being recognisable to an external matching engine available to  
10 the UDDI registry; and

15 sending details of the service to the UDDI registry, the details including a tModel which includes a reference to the description and a specification of the particular language.

7. A method for a service requester to request details of services from a UDDI registry according to service requirements, the method comprising the steps:

20 making a description of the service requirements accessible to the UDDI registry, the description comprising details of the service requirements specified in a particular language, the particular language being  
25 recognisable to an external matching engine available to the UDDI registry;

sending a tModel to the UDDI registry, the tModel including a reference to the description and a specification of the particular language; and

5       : sending a request to the UDDI registry to obtain details of the services according to the service requirements, the request including a reference to the tModel previously sent to the UDDI registry.

10       8.    A UDDI registry for locating details of services which match service requester requirements, the UDDI registry comprising:

15           means for receiving a standard UDDI request to locate service details, the request comprising details of a tModel which defines service requirements specified in a particular language;

20           means for locating details of at least one service, the details comprising a tModel which defines service capabilities specified in the particular language;

25           means for selecting from a plurality of external matching services an external matching service which is capable of comparing the service requirements and the service capabilities, wherein each external matching

service is accessed through an interface defined in an interface tModel; and

means for using the external matching service to  
5 filter the located details to find those with indicated service capabilities which match the service requirements.

9. The UDDI registry of claim 8 wherein the standard UDDI request further comprises service requirements specified in  
10 a standard UDDI category, the UDDI registry further comprising:

means for finding details of at least one service, the details defining service capabilities which match the  
15 service requirements specified in a standard UDDI category;

wherein the locating means locates details of at least one service from those found by the finding means.

10. The UDDI registry of claim 8 further comprising:

20 means for receiving a request to register an new external matching engine wherein the matching engine implements the interface defined in the interface tModel;

25 wherein the plurality of external matching services includes the new matching engine.

11. The UDDI registry of claim 8 wherein the standard UDDI request is a find\_tModel request.

12. The UDDI registry of claim 8 wherein the particular language is one of DAML-S, UML, and WSDL.

13. A service provider for providing details of capabilities of a service which it provides to a UDDI registry, the service provider comprising:

means for making a description of the service capabilities accessible to the UDDI registry, the description comprising details of the service capabilities specified in a particular language, the particular language being recognisable to an external matching engine available to the UDDI registry; and

means for sending details of the service to the UDDI registry, the details including a tModel which includes a reference to the description and a specification of the particular language.

14. A service requester for requesting details of services from a UDDI registry according to service requirements, the service requester comprising:

means for making a description of the service requirements accessible to the UDDI registry, the description comprising details of the service requirements specified in a particular language, the particular language being recognisable to an external matching engine available to the UDDI registry;

means for sending a tModel to the UDDI registry, the tModel including a reference to the description and a specification of the particular language; and

means for sending a request to the UDDI registry to obtain details of services according to the service requirements, the request including a reference to the tModel previously sent to the UDDI registry.

15. A computer program product comprising instructions which, when executed on a data processing host, cause the data processing host to carry out a method for a UDDI registry to enable location of details of services which match service requester requirements, the method comprising the steps:

receiving a standard UDDI request to locate service details, the request comprising details of a tModel which defines service requirements specified in a particular language;

locating details of at least one service, the details comprising a tModel which defines service capabilities specified in the particular language;

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selecting from a plurality of external matching services an external matching service which is capable of comparing the service requirements and the service capabilities, wherein each external matching service is accessed through an interface defined in an interface tModel; and

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using the external matching service to filter the located details to find those with indicated service capabilities which match the service requirements.

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16. The computer program product of claim 15 further wherein the standard UDDI request further comprises service requirements specified in a standard UDDI category, the method comprising the further step of:

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finding details of at least one service, the details defining service capabilities which match the service requirements specified in a standard UDDI category;

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wherein the locating step locates details of at least one service from those found by the finding step.



17. The computer program product of claim 15, the method comprising the further step of::

5       receiving a request to register an new external matching engine wherein the matching engine implements the interface defined in the interface tModel;

10       wherein the plurality of external matching services includes the new matching engine.

18. The computer program product of claim 15 wherein the standard UDDI request is a find\_tModel request.

15       19. The computer program product of claim 15 wherein the particular language is one of DAML-S, UML, and WSDL.

20       20. A computer program product comprising instructions which, when executed on a data processing host, cause the data processing host to carry out a method for a service provider to provide details of capabilities of a service which it provides to a UDDI registry, the method comprising the steps:

25       making a description of the service capabilities accessible to the UDDI registry, the description comprising details of the service capabilities specified in a

particular language, the particular language being  
recognisable to an external matching engine available to  
the UDDI registry; and

5            sending details of the service to the UDDI registry,  
the details including a tModel which includes a reference  
to the description and a specification of the particular  
language.

10        21. A computer program product comprising instructions  
which, when executed on a data processing host, cause the  
data processing host to carry out a method for a service  
requester to request details of services from a UDDI  
registry according to service requirements, the method  
15        comprising the steps:

          making a description of the service requirements  
accessible to the UDDI registry, the description comprising  
details of the service requirements specified in a  
20        particular language; the particular language being  
recognisable to an external matching engine available to  
the UDDI registry;

          sending a tModel to the UDDI registry, the tModel  
including a reference to the description and a  
25        specification of the particular language; and

sending a request to the UDDI registry to obtain details of the services according to the service requirements, the request including a reference to the tModel previously sent to the UDDI registry.

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22. A UDDI registry service for locating details of services which match service requester requirements, providing the UDDI registry service comprising the steps:

10 receiving a standard UDDI request to locate service details, the request comprising details of a tModel which defines service requirements specified in a particular language;

15 locating details of at least one service, the details comprising a tModel which defines service capabilities specified in the particular language;

20 selecting from a plurality of external matching services an external matching service which is capable of comparing the service requirements and service capabilities, wherein each external matching service is accessed through an interface defined in an interface tModel; and

25 using the external matching service to filter the located details to find those with indicated service capabilities which match the service requirements.

23. The UDDI registry service of claim 22 wherein the standard UDDI request further comprises service requirements specified in a standard UDDI category, providing the UDDI registry service comprising the further step of:

finding details of at least one service, the details defining service capabilities which match the service requirements specified in a standard UDDI category;

wherein the locating step locates details of at least one service from those found by the finding step.

24. The UDDI registry service of claim 22, providing the UDDI registry service comprising the further steps of:

receiving a request to register an new external matching engine wherein the matching engine implements the interface defined in the interface tModel;

wherein the plurality of external matching services includes the new matching engine.

25. The UDDI registry service of claim 22 wherein the standard UDDI request is a find\_tModel request.

26. The UDDI registry service of claim 22 wherein the particular language is one of DAML-S, UML, and WSDL.

27. A provider service which provides details of capabilities of a service which it provides to a UDDI registry, providing the service comprising the steps:

making a description of the service capabilities accessible to the UDDI registry, the description comprising details of the service capabilities specified in a particular language, the particular language being recognisable to an external matching engine available to the UDDI registry; and

sending details of the service to the UDDI registry, the details including a tModel which includes a reference to the description and a specification of the particular language.

28. A requester service for requesting details of services from a UDDI registry according to service requirements, providing the service comprising the steps:

making a description of the service requirements accessible to the UDDI registry, the description comprising details of the service requirements specified in a particular language, the particular language being

recognisable to an external matching engine available to the UDDI registry;

5        sending a tModel to the UDDI registry, the tModel including a reference to the description and a specification of the particular language; and

10        sending a request to the UDDI registry to obtain details of the services according to the service requirements, the request including a reference to the tModel previously sent to the UDDI registry.